

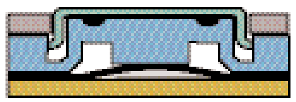
STAINLESS STEEL KEYPADS AND KEYBOARDS

Stainless steel keypads and keyboards are particularly resistant to harsh environments: extreme climatic conditions, vandalism, stains... They consist of customised stainless steel single keys mounted in a front face.
APEM develops and sells five series meeting EMC international standards and featuring good tactile feedback and IP65 front face sealing. Technology and key shape make the difference between the series.

Advantages

7 AND 70 SERIES
for semi-protected environment

7 series



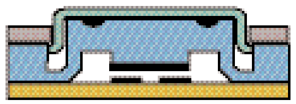
Stainless steel keys and front face
Rubber keypad
Printed circuit
Stainless steel dome

7
- Oblong keys
- Laser marking
- PS2-USB interface

mechanical specifications	
Contact force:	0.4 N +/- 0.5 N
Contact travel:	0.5 mm
Operations:	1 000 000
Sealing:	IP 65
Track ball:	IP 65 static

electrical specifications	
Maximum voltage:	24 VDC
Maximum current:	50 mA
Contact resistance:	< 10 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

70 series



Stainless steel keys and front face
Rubber keypad
Printed circuit
Carbon contact

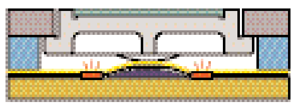
70
- Long-travel keys (rapid data entry)
- Laser marking
- PS2-USB interface

mechanical specifications	
Contact force:	1.5 N +/- 20 %
Contact travel:	1.3 mm
Operations:	1 000 000
Sealing:	IP 65
Track ball:	IP 65 static

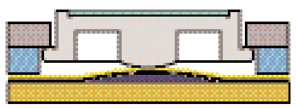
electrical specifications	
Maximum voltage:	12 VDC
Maximum current:	10 mA
Contact resistance:	8 to 20 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

8P AND 8Z SERIES
for semi-protected environment

8P series



8Z series



Stainless steel front face
Stainless keys on support
Silicone film
Printed circuit
Stainless steel dome

8P
- Backlighting
- Modularity
- Compact construction: 16.5 mm min. key spacing
- Laser marking or chemical etching

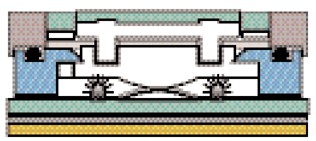
8Z
- Prominent keys
- Modularity
- Encryption option
- Laser marking or chemical etching

mechanical specifications	
Contact force:	0.4 N +/- 0.5 N
Contact travel:	0.5 mm
Operations:	1 000 000
Sealing:	IP 65
Track ball:	IP 65 static

electrical specifications	
Maximum voltage:	24 VDC
Maximum current:	50 mA
Contact resistance:	< 10 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

9 SERIES
for external environments

9 series



Stainless steel keys and front face
Silicone film
Printed circuit
Stainless steel dome

9
- For harsh environments
- Backlighting
- Modularity
- Chemical etching
- Encryption option

mechanical specifications	
Contact force:	2.5 to 4 N +/- 0.5 N
Contact travel:	0.5 mm
Operations:	3 000 000
Sealing:	IP 65
Track ball:	IP 65 static

electrical specifications	
Maximum voltage:	24 VDC
Maximum current:	50 mA
Contact resistance:	< 10 ohms
Dielectric strength:	250 V
Insulation resistance:	> 100 M ohms

Climatic specifications for all types	
Operating temperature:	- 20°/ + 70°C
With standard interface:	0°/+ 70°C
With specific interface:	- 20°/ + 70°C
Storage temperature:	- 40°/+ 85°C



STAINLESS STEEL KEYPADS AND KEYBOARDS

Numerous configurations

The five series offered by APEM not only meet the needs for standard keypads and keyboards, but also the needs for customised products with specific number of keys and key layout. Depending on the series, standard keys differ in shape and dimension; in all cases, custom marking is available. The APEM range also includes stainless steel keypads and keyboards with backlighting by LED's.

KEY SHAPES

7 series - 70 series

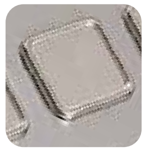
Oblong





8 series - 9 series

Round, square, rectangular







KEY MARKING

7 series - 70 series

Laser marking

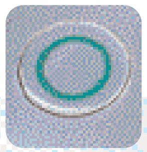




8 series - 9 series

Chemical etching (colours available)







BACKLIGHTING





8 series - 9 series

By LED (white, red, green, yellow, blue)

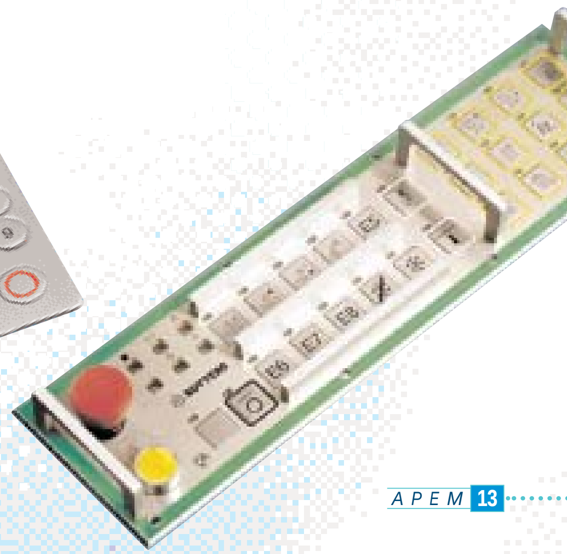
Supply voltage: + 5, + 12, + 24 VDC
Max. current for a backlit key:
8 series: 10 to 40 mA
9 series: 10 to 20 mA
depending on LED colour, number of LED's and supply voltage.

MODULARITY

8 series - 9 series

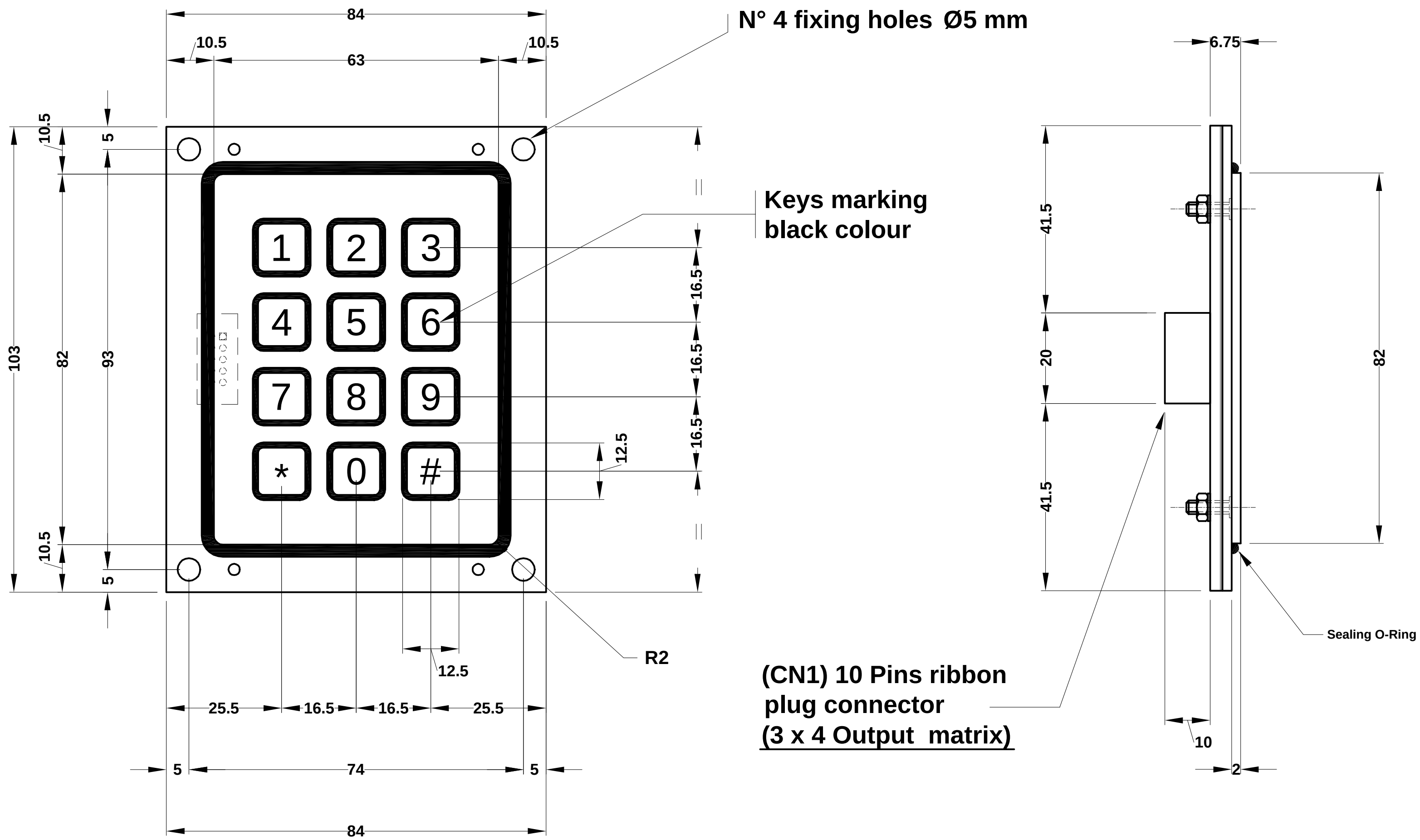
From standard keys, APEM can develop specific keypads and keyboards without expensive tooling costs for the customer.





Cut-Out 82,5 x 63,5 R=2.25

Panel thickness = 2 mm



TOP SIDE

1	xxxxxxx	//////////	⚠ ///////////////////////////////	
Rev.	DATE	Signature	Description of modifications	Approved

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APEM ITALIA
APEM ITALIA S.r.l.
via G. Marconi 147/G
12030 MARENE (CN) – ITALIA
Tel. +39.0172.743170
Fax. +39.0172.743171
apem.italia@apem.it
www.apem.it

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